



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

CERTIFICATE EXAMINATION FOR THE AWARD OF
CERTIFICATE IN ACCOUNTING AND FINANCE

COST ACCOUNTING

UNIT CODE: CIAF 003

MARKING SCHEME

1. Question 1

1.1. Solution

Cost accounting may be regarded as “a specialized branch of accounting which involves classification, accumulation, assignment and control of costs”.

1.2. Solution

Costing as an aid to management:

- a) *Cost accounting helps in periods of trade depression and trade competition:* - In periods of trade depression, the organization cannot afford to have losses which pass unchecked. The management should know the actual cost of their products before embarking on any scheme of price reduction. Adequate system of costing facilitates this.
- b) *Cost accounting aids price fixation:* e.g. The producer can take necessary guidance from his costing records in case he is in a position to fix or change the price charged.
- c) *Cost accounting helps in making estimates* - Adequate costing records provide a reliable basis for making estimates and quoting tenders.
- d) *Cost accounting helps in channelizing production on right lines* - Proper costing information makes it possible for the management to distinguish between profitable and non-profitable activities. Profits can be maximized by concentrating on profitable operations and eliminating non-profitable ones.
- e) *Cost accounting eliminates wastages* - As cost accounting is concerned with detailed break-up of costs, it is possible to check various forms of wastages or losses.

- f) *Cost accounting makes comparisons possible* - Proper maintenance of costing records provides various costing data for comparisons which in turn helps the management in formulation of future lines of action.
- g) *Cost accounting provides data for periodical profit and loss account* - Adequate costing records provide the management with such data as may be necessary for preparation of profit and loss account and balance sheet at such intervals as may be desired by the management.
- h) *Cost accounting helps in determining and enhancing efficiency* - Losses due to wastage of materials, idle time of workers, poor supervision, etc., will be disclosed if the various operations involved in the production are studied carefully. Efficiency can be measured, costs controlled and various steps can be taken to increase the efficiency.
- i) *Cost accounting helps in inventory control* - Cost accounting furnishes control which management requires in respect of stock of materials, work-in-progress and finished goods.

1.3. Solution

A cost accounting system is a system that accumulates costs, assigns them to cost objectives and reports cost information. It ascertains product profitability and helps management in planning and control of business operations.

Some of the installation considerations include the following:

- a) The size, layout and organisation of the factory should be studied.
- b) The methods of purchase, receipt, storage and issue of materials should be examined and modified if necessary.
- c) The method of paying wages should be studied.
- d) The management requirements and their attitude towards cost accounting should be kept in view.
- e) The cost of installing and operating the system should be economical.
- f) The nature, method, process and stages of production, the quantities and qualities of each product should be examined.
- g) The system should suit the organisation.
- h) Forms and records should involve minimum clerical work and cost.
- i) The system should enable prompt reporting to the various levels of management.
- j) The system should so designed that cost can be effectively controlled.
- k) The staff in the cost accounting department should have the ability to produce required cost data. The persons using the reports should be able to understand and use the information.
- l) The adoption of cost accounting systems and practices followed by other firms in the industry facilitates inter unit and inter-firm comparisons.
- m) A suitable unit of cost should be selected so that the cost is meaningful. For example, in a steel mill, the unit is “tonne” and in a company producing refrigerators, the unit is each refrigerator.

- n) External factors e.g. government regulations affect the frequency, volume and structure of the cost accounting system.

1.4. Solution

$$\text{Normal delivery period} = \frac{(4+6)}{2} = 5 \text{ weeks}$$

$$\text{Ordering level} = \text{Maximum usage} \times \text{Maximum delivery period}$$

$$= 150 \times 6 = 900 \text{ units.}$$

$$\text{Minimum level} = \text{Ordering level} - (\text{Normal usage} \times \text{Normal delivery period})$$

$$= 900 - (100 \times 5) = 400 \text{ units}$$

$$\text{Maximum level} = (\text{Ordering level} + \text{Ordering quantity}) -$$

$$(\text{Minimum usage} \times \text{Minimum delivery period})$$

$$= 900 + 600 - (50 \times 4) = 1,500 - 200 = 1,300 \text{ units}$$

2. Question2

2.1. Solution

Under Last-in First out (LIFO) Method, the principle adopted is that the materials used in production is from the latest purchase. The inventory is priced at the oldest costs. As the method applies the current cost of materials to the cost of units, it is also known as the replacement cost method. It is the most significant method in matching cost with revenue in the income determination procedure.

Advantages of LIFO:

- It is simple and useful when transaction are few.
- It is a good method of avoiding tax.
- It is a systematic method. It matches current costs with current revenues in a better way.
- It reveals real income in times of rising prices.
- It minimizes unrealized inventory gains and losses and tends to stabilize reported operation profits especially when the industry is prone to sharp price fluctuations.

Disadvantages:

- When rates of material receipts are highly fluctuating, the method becomes complicated.
- More than one price may have to be adopted for an issue.
- Cost of different batches varies greatly, making inter-firm and intra-firm comparison difficult.
- The stocks require to be adjusted during falling prices.
- Unless purchases and sales occur in equal quantities the current costs cannot be easily matched with current revenue.

- f) The company can time the purchases to cause high or low costs thus changing reported income at will.
- g) Existing profit sharing and bonus can be effected by an accounting change. Employees will have difficulty in understanding the cause for these changes.

2.2. Solution

Objectives of Inventory or material control include:

- h) To provide continuous flow of required materials, parts and components for efficient and uninterrupted flow of production.
- i) To minimize investment in inventories keeping in view operating requirements.
- j) To provide for efficient store of materials so that inventories are protected from loss by fire and theft and handling time and cost are kept at a minimum.
- k) To keep surplus and obsolete items to minimum.

3. Question3

3.1. Solution

- a) Job Costing: It refers to a system of costing in which costs are ascertained in terms of specific jobs or orders which are not comparable with each other. Industries where this method of costing is generally applied are printing press, automobile garage, repair shop, ship-building, house building, engine and machine construction, etc.
- b) Batch Costing: This method is also a type of job costing. A batch of similar products is regarded as one job and the cost of this complete batch is ascertained. It is then used to determine the unit cost of the articles produced. It should, however, be noted that the articles produced should not lose their identity in manufacturing operations.
- c) Operating Costing: This method is applicable where services are rendered rather than goods produced. The procedure is same as in the case of single output costing. The total expenses of the operation are divided by the units and cost per unit of service is arrived at. This method is employed in railways, road transport, water supply undertakings, telephone services, electricity companies, hospital services, municipal services, etc.

3.2. Solution

Cost centre is the smallest organisational sub-unit for which separate cost collection is attempted. Each such unit consists of a department or a sub-department or item of equipment or, machinery or a person or a group of persons.

A cost unit is a devise for the purpose of breaking up or separating costs into smaller sub-divisions. These smaller sub-divisions are attributed to products or services to determine product cost or service cost or cost of time spent for a particular job etc. The forms of measurement used as cost units are usually the units of physical measurements like number, weight, area, length, value, time etc.

4. Question4

4.1. Solution

Incentive system or Bonus plan: Both time rate and piece rate systems have their merits and demerits. Incentive system attempts to combine the good aspects of both systems. The main objective of incentive plan is to induce a worker to produce more to earn a higher wage. Producing more in the same period of time should result in higher pay for the worker because, if greater number of units produced, it should also result in a lower cost per unit for fixed factory cost and also for labour cost.

Advantages of Incentive Schemes;

- a) Less supervision is required;
- b) The employee morale is high because they can earn more;
- c) There is increased productivity;
- d) Increased production reduces cost;
- e) Labour cost can be estimated;
- f) It is possible to set standards for labour with accuracy;
- g) There is maximum utilization of resources;
- h) A task is done in the most economical manner which reduces labour cost.

Disadvantages of Incentive Schemes

- a) If rates are not uniform for same type of jobs, it causes discontent.
- b) Quality may deteriorate and may be sacrificed in order to increase quantity.
- c) It involves more calculations.
- d) The workers may not adhere to the safety precautions in order to increase production. Hence accidents may occur.
- e) The workers' health may be affected due to over-strain.
- f) There may be apprehensions regarding rate cutting.
- g) Inefficient workers may envy the efficient ones which may cause unrest.
- h) Unskilled workers sometimes earn more than skilled workers if the latter have to work on time basis.

4.2. Solution

Labour turnover is the ratio of the number of persons leaving in a period to the average number employed. It is the change in the composition of the labour force in an organisation.

It increases cost of production due to the following reasons:

- a) Cost of selecting/replacing workers
- b) Cost of training imparted to new workers
- c) Production planning cannot be properly executed and this results in production loss
- d) Loss due to defectives and wastage
- e) Loss due to mishandling of tools, equipments, breakages, etc.

5. Question5

5.1. Solution

Absorption of overheads refers to charging of overheads to individual products or jobs. The overhead expenses pertaining to a cost centre are ultimately to be charged to the products, jobs etc. which pass through that cost centre. For the purpose of absorption of overhead to individual jobs, processes or products, overheads absorption rates are applied.

In the case of labour cost, the overhead absorption rate is calculated using either;

- a) Percentage of direct labour cost.
- b) Direct labour hour rate.
- c) Machine hour rate.
- d) Combined machine hour and labour hour rate.

The predetermined rates may represent estimated, actual or normal costs. In either case, the amount of expenses actually incurred and the amount of overheads applied to production will seldom be the same.

5.2. Solution

Cost allocation is “that part of cost attribution which charges a specific cost to a cost centre or cost unit”.

Apportionment refers to the distribution of overheads among departments or cost centres on an equitable basis.

6. Question6

6.1. Solution

Standard Costing refers to the preparation of standard costs and applying them to measure the variations from standard costs and analyzing the variations with a view to maintain maximum efficiency in production. What is done in this case is that costs of each article are determined before-hand under current and anticipated conditions, but sometimes they are determined before-hand under normal or ideal conditions. Then actual costs are compared with the pre-determined costs and deviations known as variances are noted down.

Thereafter, the reasons for the variances are ascertained and necessary steps are taken to prevent their recurrence.

6.2. Solution

Uses of cost sheet include;

- a) It gives total cost and cost per unit for a particular period.
- b) It gives information to management for cost control.
- c) It provides comparative study of actual current costs with the cost of corresponding periods, thus causes of inefficiencies and wastage can be known and suitably corrected by management.
- d) It acts as a guide to manufacture in formulation of suitable and definite policies and in fixing up the selling price.